

EXHIBIT 1

IN THE SUPREME COURT OF THE UNITED KINGDOM
ON APPEAL FROM THE COURT OF APPEAL
(CIVIL DIVISION)

UKSC 2018/0214;
UKSC 2019/0041 and
UKSC 2019/0042

BETWEEN:

(1) UNWIRED PLANET INTERNATIONAL LIMITED
(2) UNWIRED PLANET LLC

Respondents

and

(1) HUAWEI TECHNOLOGIES CO. LIMITED
(2) HUAWEI TECHNOLOGIES (UK) CO. LIMITED

Appellants

AND BETWEEN:

CONVERSANT WIRELESS LICENSING S.À.R.L.

Respondent

and

(1) HUAWEI TECHNOLOGIES CO. LIMITED
(2) HUAWEI TECHNOLOGIES (UK) CO. LIMITED
(3) ZTE CORPORATION
(4) ZTE (UK) LIMITED

Appellants

**WRITTEN SUBMISSIONS ON BEHALF OF
TELEFONAKTIEBOLAGET LM ERICSSON (PUBL)**

(INTERVENER)

1. The following are the submissions of Telefonaktiebolaget LM Ericsson (publ) ("Ericsson") in relation to the appeal set out in Huawei's Notice of Appeal in case UKSC 2018/0214, in respect of which Ericsson applied for permission to intervene by written submissions, pursuant to Rule 26 of the Supreme Court Rules 2009, on 23 August 2019.
2. Ericsson is a lead contributor to and architect for cellular standards – 2G, 3G, 4G and now 5G. It is also a major vendor of standardised wireless technology, employing around 95,000 individuals and selling in over 180 countries. Ericsson is thus a significant licensor and licensee of patented standard-essential technology. More details of Ericsson's business and its involvement in standards is set out in Ericsson's application for permission to intervene under Rule 26, the substance of which is repeated below for convenience.

Ericsson as an equipment manufacturer and vendor

3. Ericsson is active in supplying infrastructure products, including for 2G, 3G, 4G and 5G technology. Indeed, approximately 40% of global mobile traffic runs through networks that Ericsson has supplied, and more than 1 billion subscribers around the world rely on networks managed by Ericsson. Looking ahead to the rollout of 5G networks, Ericsson has since 2015 shipped 1 million base stations with hardware prepared for 5G.
4. Ericsson also has historical experience as a maker and vendor of mobile handsets, first in its own right and then from 2001 through a joint venture with Sony Corporation. That joint venture operated successfully for more than a decade. In 2012, Ericsson decided to exit the provision of handset products altogether and sold its shares in the joint venture to Sony Corporation in February 2012.

Ericsson as an innovator and contributor to standards

5. Ericsson has been in the telecommunications business since it was founded in 1876. Its experience in the industry and in standardisation far predates that of any of the parties in this case. Throughout that time, Ericsson has consistently driven technological developments and generated innovations in almost all aspects of telecommunications technology, from telegraph to telephone to the latest mobile standards. Unlike the Respondents in this case (which have not contributed and do not contribute to standards development), Ericsson has contributed to all generations of telecommunications standards – 2G, 3G, 4G and 5G – and its extensive investment in R&D spans decades. The Appellants are more recent contributors to the standards.
6. Ericsson has been driving the standardisation process for many years as its lead architect, through all generations of mobile technology. The following are examples from the past few decades:
 - (a) in the 1980s: as a member of the European Conference of Postal and Telecommunications Administrations (the precursor to ETSI), Ericsson was one of the developers of the second generation (or "2G") digital mobile technology that would later be called GSM. Further, Ericsson was instrumental in developing two updates to GSM, called GPRS and EDGE, respectively;
 - (b) in 1988: the European Commission formed ETSI to accelerate standardisation and promote greater harmonisation among European telecommunications systems. Ericsson was one of the original members of ETSI. ETSI took over

the work of Ericsson and other members of the European Conference of Postal and Telecommunications Administrations with regard to 2G, and the resulting 2G standard was largely based on Ericsson's hardware prototype for a digital cellular telephone system;

- (c) in the 1990s: Ericsson continued to lead as standardisation moved from 2G to 3G technology. In particular, in the early 1990s, Ericsson was instrumental in the development of a new cellular technology which became known as Wideband Code Division Multiple Access or WCDMA and was the basis for the 3G standard. Ericsson then played a leading role in convincing key stakeholders, such as leading operators, regulators and standard development organisations that the creation of the Third Generation Partnership Project ("3GPP") would facilitate the adoption of a global interoperable 3G standard. All 2G related development activities were subsequently moved over to 3GPP, which has more recently also developed 4G;
 - (d) in the 2000s: Ericsson hosted the world's first 3G call for Vodafone in the UK in 2001 and, in 2009, demonstrated the first LTE (4G) connection in Stockholm, Sweden. Shortly after that, Ericsson launched the world's first LTE (4G) network for TeliaSonera using Release 8 of the 4G standard; and
 - (e) in the 2010s: a group of Ericsson inventors were shortlisted in 2014 as finalists by the European Patent Office for the European Inventor Award in recognition of the decisive role that they had played in the development of the LTE (4G) standard.
7. While 4G (LTE) technology continues to develop, Ericsson is simultaneously investing in the next generation of standards – 5G. While 2G, 3G and 4G standards were focussed on consumer and personal communications, 5G will provide the superior connectivity required to better serve both consumers and enterprises, and to significantly enhance the development of the "Internet of Things". Ericsson was the largest contributor to 3GPP during 2018 in relation to the 5G standard and is the first infrastructure equipment manufacturer with live 5G networks in four continents.

Ericsson as an investor in R&D

8. Ericsson's technological contributions are made possible by its investment in R&D. For the last twenty five-plus years, Ericsson has invested roughly 15% of its annual revenue in R&D. Its 2018 annual report shows that over the past 3 years, Ericsson's annual R&D investment has ranged, in real terms, between SEK 32-39 billion (an average of approximately GBP 3 billion) per annum, and that approximately 25,000

Ericsson employees are currently involved in R&D worldwide. Ericsson's identity as a R&D company, and its need to be adequately and fairly rewarded to fund further investment in R&D, provides it with another different perspective to that of the Respondents, which are not involved in R&D.

Ericsson as Patentee

9. Ericsson is widely viewed as one of the leading innovators in the field of wireless communication and has one of the telecommunication industry's largest, strongest and most respected patent portfolios. Specifically, Ericsson's portfolio comprises over 49,000 granted patents, with a net growth of roughly 3,000 to 4,000 new granted patents per year over the past few years. Many of Ericsson's patents are declared as potentially essential to the principal standards used by modern mobile telecommunications devices and infrastructure, including the 2G, 3G, 4G and 5G standards.

Ericsson as Licensor and Licensee of Standard Essential Patents

10. Ericsson's ability to contribute to market-leading innovation and standards depends in large part on being fairly and adequately rewarded for its investments, now and in the future, by way of licensing revenue for use of its patented technologies. At the same time, its ability to operate as an infrastructure equipment manufacturer depends on having access to standardised technology on reasonable terms. These are pressures to which the Respondents in this case are not subject as, unlike Ericsson, they do not implement the standards or sell products, and nor do their businesses depend on being fairly and adequately rewarded for investment in R&D. Ericsson – as both licensor and licensee of standard essential patents – is therefore dependent on a fair and balanced system for standard essential patent licensing and enforcement.
11. Ericsson has a comprehensive licensing programme on FRAND terms for its standard essential patents declared to the relevant Standards Setting Organisations/Standards Developing Organisations. Virtually all major suppliers of telecommunications equipment have been licensed by Ericsson, both in relation to infrastructure and handsets. Licensees include, among others, Apple, Samsung, Huawei, and ZTE.
12. Ericsson has licensed its standard essential patent portfolio for approximately two decades and has negotiated and entered into over 100 cross-licensing transactions for its standard essential patent portfolio and the standard essential patent portfolios of others. Accordingly, Ericsson has extensive experience in licensing standard

essential patents as both licensor and licensee, which far predates that of the parties in this case.

Approach to the Application of FRAND Principles – the Correct Balance

13. For Ericsson, it is absolutely critical that the law maintains the correct balance when it comes to the application of FRAND principles – one that not only encourages continued investment in the development of standardised technology by adequately and fairly rewarding IPR owners, but that also allows for widespread adoption of that technology. Otherwise, either innovators will no longer be incentivised to contribute to standards development, or alternatively, implementers will no longer be incentivised to adopt and sell products embodying the standardised technology widely.
14. Indeed, this balance is enshrined in the explicit objectives of the cellular industry's IPR Policy for standard essential IPRs. The ETSI IPR Policy, which underlies the FRAND commitment made in this case, lists its objectives clearly: (i) to create standards "*based on solutions that best meet the technical objectives of the European telecommunication sector,*" (ii) to reduce the risk that the resulting standards are "*unavailable,*" and (iii) to "*adequately and fairly reward*" IPR owners for the use of their IPRs (ETSI IPR Policy, as quoted in paragraph 24 of the Court of Appeal's judgment). With the promise of balanced interests in hand, the cellular industry has created one of the world's most vibrant ecosystems of innovators and implementers whose efforts have led to the tremendous success of cellular standards worldwide.
15. For example, based on their extensive research and development, innovators from all over the world have to date made well over 100,000 submissions just to 4G/LTE standardisation. These submissions have been made over the course of more than a decade in an open and collaborative engineering environment, shaping the discussions in dozens of technical meetings each year. To provide a sense of scale, in recent years, innovators have submitted as many as 2,500 written submissions for a single technical meeting, representing the fruits of considerable development effort. The number of pages in these 2,500 submissions is approximately two and a half times what William Shakespeare wrote in his entire lifetime. The innovators making these submissions have, as far as Ericsson is aware, all committed to license their essential IPRs on FRAND terms under the ETSI IPR Policy. Meanwhile, implementers have sold many billions of smartphones in markets all over the world. Just since 2016, implementers have sold over 5 billion smartphones, receiving over

\$1.28 trillion in revenue.¹ This high level of commitment to standards development and to widespread technological adoption would not be possible without maintaining a suitable balance between the interests of innovators and implementers of standard essential technology.

16. Ericsson thus fully agrees with the explanation in paragraphs 53 and 54 of the judgment of the Court of Appeal that "*... implementers must be able to use the technology embodied in and required by the standard provided they are prepared to pay a FRAND rate for doing so, for otherwise the owner of the relevant patent rights would be able to charge excessive licensing fees ... Just as implementers need protection, so too do the SEP owners. They are entitled to an appropriate reward for carrying out their research and development activities and for engaging with the standardisation process, and they must be able to prevent technology users from free-riding on their innovations.*"
17. Ericsson considers that the approach to FRAND taken by Birss J at first instance, as modified by the Court of Appeal, achieves this correct balance.

Ground 1 (Global rate setting): In determining the appropriate rate for UK SEPs, was it right for the English court to set rates to be applied under all foreign patents in the patentee's portfolio?

18. The issue before the Supreme Court is how an English court should approach the determination of FRAND licence terms when a UK patent has been found valid and infringed and it falls to the court to consider the question of relief. Accordingly, Ericsson's submissions are limited to the interpretation of FRAND in that context.
19. In the scenario at hand, i.e. the assessment of a FRAND defence when determining relief in patent infringement proceedings, the correct question – and the one before both lower courts – is how a patent holder can discharge its FRAND obligation under its contract with ETSI.

Ground 1: Article 6.1 of the ETSI IPR Policy

20. The construction, validity, and performance of the undertaking provided in Article 6.1 of the ETSI IPR Policy (the "FRAND Undertaking"), which forms part of the contract between ETSI and the SEP owner that declares patents to ETSI, and is enforceable against the SEP owner by third parties, are governed by the laws of France (as

¹ Linda Sui, *VALUE SHARE: Global Smartphone Revenue, ASP and Profit by Vendor by Price Tier: Q2 2019*, Strategy Analytics, August 16, 2019, available at <https://www.strategyanalytics.com/access-services/devices/mobile-phones/smartphone/smartphones/market-data/report-detail/value-share-global-smartphone-revenue-asp-and-profit-by-vendor-by-price-tier-q2-2019>.

observed by Birss J in paragraph 100 of his judgment and by the Court of Appeal in paragraph 27 of its judgment). Under French laws of contractual interpretation, absent clear and unambiguous terms in the contract itself, a court must seek the common intention of the contracting parties at the time they contracted. If the parties' common intent cannot be discerned, a contract is to be interpreted in the way that it would be by a reasonable person placed in the same circumstances as the parties to the contract. In addition to a contract's express terms, a court may find the parties' common intent in light of all of the available evidence, including in light of considerations of equity, usage, or legislation. That is, under French law, courts may interpret a contract based on fairness to the parties, customary practices in a particular field, or legislation.

21. Article 6.1 of the ETSI IPR Policy does not clearly and unambiguously address whether an IPR holder can discharge its FRAND obligation by being prepared to grant a global portfolio license to a global vendor like Huawei. Nor is country-by-country licensing specified in the ETSI IPR Policy.

Ground 1: Territory of SEP Licences – Industry Practice

22. An important factor in the decisions of the lower courts when determining licence terms in the context of relief for patent infringement was the industry practice of granting global licences. Paragraph 55 of the judgment of the Court of Appeal records that Huawei accepts that, outside the litigation process, SEP owners and implementers will often negotiate a licence which best suits their respective needs in accordance with FRAND principles and further, that this licence will often be global or at least cover a number of different territories. Paragraph 105 of the judgment similarly refers to the fact that global licensing is what reasonable undertakings in the telecommunications sector do.
23. Ericsson can confirm, from its own extensive experience of negotiating SEP licences, that it is customary practice in the mobile industry to conclude global patent portfolio licences between innovators owning a multi-jurisdictional patent portfolio and vendors selling on a global scale. Ericsson has concluded over 100 SEP cross-licensing transactions over approximately 20 years, for 2G, 3G, 4G, and now 5G technologies. Parties with whom Ericsson has concluded licensing transactions include Samsung, Huawei, ZTE, RIM, Apple and Sony, which were considered by Birss J at first instance at paragraphs 414 to 460 of his judgment, and referred to by the Court of Appeal at paragraph 233 of its judgment.

24. Ericsson can also confirm that negotiating individual licences, under a multi-jurisdictional portfolio, on a country-by-country basis, does not happen in practice.
25. Normally, licence negotiations in industry involve hundreds of patents issued in dozens of countries. Implementers normally make their standard-compliant equipment in one or more countries, offer to sell that equipment in numerous countries worldwide or on the global Internet, ship the equipment across borders to warehouses, stores, or end customers, and enable those end customers to use the standard-compliant equipment globally across national networks. A country by country licensing discussion would need to account for all of these cross-border infringing activities, including estimating their economic value, for hundreds of patents across dozens of countries, as well as considering newly issued patents that continually arise.
26. Moreover, Ericsson completely agrees with paragraph 110 of the judgment of the Court of Appeal, which refers to paragraph 544 of the judgment of Birss J and explains that, for a multi-jurisdictional portfolio and a licensee with a global business, licensing country by country would be *"needlessly inefficient because of the effort required to negotiate and agree so many licences and then keep track of so many different royalty calculations and payments"*. Similarly, from the licensee's point of view, country-by-country licensing would entail the considerable administrative burden of managing and complying with a multitude of separate, potentially unsynchronised, obligations, such as regards reporting and payment, with potentially varying expiry and renewal dates. This simply would not work and therefore does not happen in practice.
27. Instead, in good faith negotiations, industry participants assess global patent portfolios as a whole, consider global infringing activities as a whole, and agree to global patent portfolio licenses. Sizable teams of engineers, lawyers, and licensing professionals typically meet on several occasions before entering into such global patent portfolio licenses, to discuss the global patent portfolio at issue, the prospective licensee's global business, and the global commercial offer. A global patent portfolio licence then gives the implementer freedom to operate, a key objective of any reasonable industry participant and an explicit objective of the ETSI IPR Policy. A global patent portfolio licence also fairly and adequately rewards the owner of the global essential patent portfolio, also a key objective of any reasonable industry participant and an explicit objective of the ETSI IPR Policy.

28. Ericsson considers that licensing of patent portfolios on a global basis is, to use the words of the CJEU in *Huawei v ZTE*, "*in accordance with recognized commercial practices in the field and in good faith*."²

Ground 1: Territory of FRAND Licences – Approach of Courts in Other Jurisdictions

29. Indeed, many courts, and regulators besides the lower courts here, have found global patent portfolio licensing offers to be sound and to discharge the FRAND obligation. These include, by way of non-exhaustive example, the court decisions referred to by the Court of Appeal at paragraphs 63 to 73 of its judgment, in particular *Pioneer v Acer* and *St Lawrence v Vodafone* at paragraphs 63 and 64, and the further examples set out below.

- In *Certain Wireless Devices with 3G Capabilities and Components Thereof*, the US International Trade Commission ("ITC") determined that InterDigital had complied with its FRAND obligations, including to ETSI, by making global licence offers to prospective licensees. The ITC's Initial Determination expressly notes that "*the licensing undertakings submitted by InterDigital under SSO IPR policies do not require single-country licenses, but instead contemplate worldwide licenses*." It also observes that "*InterDigital's practice is to license its patent portfolio on a worldwide basis, and InterDigital's rejection of Nokia's U.S.-only license proposal is not an indication of bad faith*";³
- In *Motorola Mobility LLC and Google Inc* the US Federal Trade Commission issued an Order setting out conditions that Google/Motorola must meet in their dealings with prospective licensees of their SEPs. The Order provided for the possibility that the prospective licensee could, after receiving a licence offer from Motorola/Google, elect to have contested licence terms determined in court. The Order's provisions regarding court determination presuppose that the court-determined licence will be global in scope – "*Request for a FRAND Determination*" in the Order is defined as a request "*that the court determine at least the royalty terms of a global license for use of the Respondents' FRAND*

² Case C-170/13 *Huawei Technologies Co. Ltd v ZTE Corp.* ECLI:EU:C:2015:477, Judgment of the Court (Fifth Chamber), 16 July 2015, paragraph 65.

³ *In the Matter of Certain Wireless Devices with 3G Capabilities and Components Thereof*, Investigation No. 337-TA-800, United States International Trade Commission, Initial Determination of Administrative Law Judge David P. Shaw, 28 June 2013, pp. 425 and 432. The subsequent Commission Opinion in this investigation did not address InterDigital's FRAND commitments.

Patents Essential to a Standard" – and require Motorola/Google to offer a global licence;⁴ and

- The Court of Appeal, at paragraph 60 of its judgment, quotes from the communication from the Commission, the Council and the European Economic and Social Committee dated 29 November 2017 that "*principles of efficiency support the practice of SEP portfolio licensing for products with global circulation*" and "*a country-by-country licensing approach may not be efficient and may not be in line with a recognised commercial practice in the sector.*" Ericsson considers that these statements accurately capture market realities.

30. Moreover, both Ericsson and Huawei have been involved in court proceedings in which the parties accepted, and the courts proceeded on the basis, that global patent portfolio offers are FRAND.

- In *HTC v Ericsson*, Ericsson's offer to HTC was global. The US District Court for the Eastern District of Texas found Ericsson's offer to comply with Ericsson's FRAND obligations to ETSI, in light of the terms of Ericsson's comparable licences;⁵ and
- In *Huawei v Samsung*, Huawei sought and was awarded an injunction in China based on a global patent portfolio licence offer, which Huawei argued – and the Guangdong Shenzhen Intermediate People's Court agreed – satisfied its FRAND obligation in that matter.⁶

Ground 1: Conclusion

31. Ericsson submits that, for the reasons set out above, a global portfolio licence in this matter is FRAND and Unwired Planet's offer of a global portfolio FRAND licence to Huawei fulfils its FRAND obligation for purposes of determining relief for patent infringement. In contrast, a country-by-country licence offer in this matter would not be in line with industry practice, would be unworkable, and would frustrate the explicit policy objectives of the ETSI IPR Policy and the balance needed for industry to continue to thrive.

⁴ *In the Matter of Motorola Mobility LLC, a limited liability company and Google Inc., a corporation*, Docket No. C-4410, United States of America before the Federal Trade Commission, Decision and Order, 23 July 2013. See in particular paragraphs I.Z, II.E.3, III.C.2 and Exhibit A.

⁵ *HTC Corporation and HTC America Inc v Telefonaktiebolaget LM Ericsson and Ericsson Inc*, Case 6:18-cv-00243-JRG, United States District Court of the Eastern District of Texas Tyler Division, Memorandum of Findings of Fact and Conclusions of Law, 23 May 2019.

⁶ *Huawei Technology Co., Ltd. v Samsung (China) Investment Co., Ltd.*, (2016) Yue 03 Min Chu (Zhi) No 816, Guangdong Shenzhen Intermediate People's Court, Civil Judgment, 4 January 2018.

Ground 2 (Huawei v ZTE): Does the CJEU's Huawei v ZTE decision identify only a "safe harbour" within which a SEP owner would not abuse a dominant position?

32. In these submissions, Ericsson focuses on the meaning of the contractual FRAND commitment. As such, Ericsson does not address this ground of appeal here.

Ground 3 (Non-discrimination): How is the non-discrimination limb of the FRAND undertaking properly to be interpreted?

Ground 3: The ETSI IPR Policy

33. The meaning of the FRAND Undertaking, including the "non-discriminatory" element of "FRAND", must be interpreted as a matter of French law (Ericsson addresses French rules of construction in paragraph 20 above). There is no clear and unambiguous definition of non-discrimination in the FRAND Undertaking. Accordingly, the meaning of non-discrimination must be discerned as the common intent of the parties to the contract of which the FRAND Undertaking forms a part – i.e. the contract between ETSI and SEP owners that declare patents to ETSI – or, if that intent is unclear, what a reasonable person placed in the same situation would interpret it to mean.
34. The ETSI IPR Policy underlies the contract between ETSI and SEP owners of which the FRAND Undertaking forms a part. As discussed above, and as noted by the Court of Appeal in paragraph 24 of its judgment, the explicit objectives of the ETSI IPR Policy are (i) to create standards "*based on solutions that best meet the technical objectives of the European telecommunication sector*," (ii) to reduce the risk that the resulting standards are "*unavailable*," and (iii) to "*adequately and fairly reward*" intellectual property owners for the use of their intellectual property rights. As the Court of Appeal found in paragraph 196 of its judgment, Birss J's definition of non-discrimination aligns with those objectives by providing access to the technology on fair terms. In contrast, nothing in ETSI's IPR Policy objectives requires that the next licensee receive the best terms previously granted to another. That concept therefore cannot take "*unwarranted primacy*" (to use the Court of Appeal's words at paragraph 201 of its judgment) over the explicit policy objective of fairly rewarding IPR owners, without frustrating the common intent of the contracting parties.
35. The drafting history of the ETSI IPR Policy confirms this. Ericsson's understanding is that non-discrimination was intended to protect companies from being excluded based on nationality or non-membership in ETSI. It was not intended to refer to

providing most-favoured nation treatment, where all similarly situated licensees receive the same licensing terms.

36. What the Court of Appeal says in its judgment at paragraph 199 – that the effect of hard-edged non-discrimination *"is akin to the insertion of the rejected "most favoured licensee" clause in the FRAND undertaking"* and *"the industry would have regarded such a term as inconsistent with the overall objective of the undertaking"* – accords with Ericsson's understanding. Birss J's definition of non-discrimination, as upheld by the Court of Appeal, aligns with the meaning that can be derived from the drafting history of the ETSI IPR Policy; Huawei's "hard-edged non-discrimination" does not.
37. ETSI's explanatory guide to the ETSI IPR Policy, which can be taken to reflect the common intent of the parties to the contract, provides further support to the lower courts' definition of non-discrimination. In particular, the ETSI Guide on IPRs states that *"ETSI expects its members (as well as non-ETSI members) to engage in an impartial and honest Essential IPR licensing negotiation process for FRAND terms and conditions."* A "hard-edged" non-discrimination rule would frustrate the licensing negotiations intended by the ETSI IPR Policy, as further explained below.

Ground 3: Harmful Impact of a "Hard-Edged" Non-Discrimination Rule

38. From its perspective as both an owner and implementer of standard essential patents with extensive experience of negotiating licences as both licensor and licensee, Ericsson is in complete agreement with the Court of Appeal's warning at paragraph 198 that *"a non-discrimination rule has the potential to harm the technological development of standards if it has the effect of compelling the SEP owner to accept a level of compensation for use of its invention which does not reflect the value of the licensed technology"*.
39. A "hard-edged" non-discrimination rule, as explained by Birss J in paragraph 177 of his judgment and referred to in the Court of Appeal's judgment at paragraph 179, would adversely affect licensing in practice. Firstly, it has the potential to inhibit timely conclusion of licences and risk frustrating negotiations altogether. Secondly, it is unworkable in practice and strips negotiating parties of the flexibility required to compromise with each other and accommodate each other's specific circumstances. Thirdly, it is liable to give rise to more disputes and litigation. Fourthly, it will cause a downward spiral in the levels of royalties (or other financial consideration), thereby reducing the return on investment to SEP holders for use of their inventions. We address each of these points in more detail below.

Delay

40. With a "hard-edged" non-discrimination rule, a prospective licensee would be incentivised to argue for a royalty lower than the lowest royalty previously agreed with another licensee, knowing that the previous lowest royalty would act as a ceiling in its negotiation. On the other hand, a licensor would be concerned about compromising in any negotiation, as agreeing to lower rates with a particular licensee will adversely impact all future negotiations. It would lower the "ceiling" for all future prospective licensees. Such an impasse would likely be difficult to resolve absent compromise unfavourable to the SEP owner, delaying conclusion of negotiations or even frustrating them altogether.

Unworkable and inflexible

41. A "hard edged" non-discrimination rule would also be entirely unworkable in practice, given that actual negotiated licences even of the same portfolio of patents may be structured in quite different ways. For instance, they may be concluded using different payment mechanisms (e.g. lump sum or running royalties, royalty floors/caps), may cover different standards and release periods, may include cross-licensing provisions or other non-monetary consideration, and may license non-standard essential patents, among other variables. Often, it would be very difficult, if not impossible, to assess with any degree of confidence whether the terms of two differently structured licences are, or are not, the "same". Birss J at paragraphs 187 to 196 of his judgment correctly acknowledged the difficulties in relation to the "unpacking" of licences even in a comparables analysis. Variables such as lump sums and cross-licensing provide complications and uncertainties when attempting to determine prices payable under different licences in a form (e.g. a single running royalty) that allows comparison between them. There would be no universally accepted means of determining a price that would not be open to challenge based on alternative "unpacking" methodologies.
42. Even where no "unpacking" is required, establishing a "non-discriminatory" price would not be straightforward or free of dispute. By way of example, two similarly situated suppliers of mobile handsets may nevertheless sell the majority of their models at different retail prices. One ("Supplier A") might sell its handsets retailing at an average price approaching £1,000, and another ("Supplier B") might sell its handsets retailing at an average price of closer to £100. This might be the case for a number of reasons, for example because a greater proportion of Supplier A's sales are of its higher-end models and a greater proportion of Supplier B's sales are of its lower-end models, despite the fact that both offer a similar range of products. If a

SEP owner set a fixed royalty rate of 1% of the handset selling price, Supplier A would pay £10 per handset and Supplier B would pay £1 per handset. Supplier A would argue that this is discriminatory, even though, on the face of it, each licensee has received identical terms. If the SEP owner instead charged a fixed price per handset of £5, Supplier B would claim discrimination on the basis that it was paying a much higher percentage of its margin in royalty fees even though, again, both licensees have received identical terms.

43. A "hard-edged" non-discrimination rule would, moreover, strip negotiating parties of the flexibility to reach pragmatic solutions in these circumstances, and in other circumstances in which a pragmatic solution would be of benefit to all parties. To provide another example, a licensee that is cash-rich might prefer to pay the entire licensing price for the term of a licence in one lump sum. It would expect to receive a discount for doing so, as is customary in a variety of circumstances when a customer pays for the full term of a contract upfront rather than periodically by instalments (for example when purchasing railway season tickets, content subscription services, or software licences). The discount may reflect, for example, some or all of the following: the present value of future cash flows, the efficiency savings to the SEP owner of not having to administer periodic payments, and the value to the SEP owner of having financial certainty regarding sums receivable under the licence. A company that is cash poor or less sure of its future, for example because it is a new entrant to the market or contemplates that it may cease to sell the licensed products before the end of the licence term, may prefer to pay royalties in instalments throughout the life of the licence. Were it required to pay the full consideration upfront with a discount, it may be unable to afford the licence or, in the case of a new entrant, enter the market at all. The inflexibility imposed by a "hard-edged" non-discrimination rule could thereby harm prospective licensees and reduce consumer choice.
44. The unworkability and inflexibility of "hard-edged" non-discrimination therefore would also contribute to delay and impasse in licensing negotiations.

Disputes and litigation

45. A "hard-edged" non-discrimination rule would therefore give rise to more disputes between SEP owners and implementers. As noted above, the "hard-edged" non-discrimination rule would act as a ceiling, but it would not act as a floor. An implementer would be incentivised to argue, first, that the only licensee comparable to its own circumstances ("similarly situated") is the one whose licence terms are those the implementer considers best supports its position. The implementer would, secondly, be incentivised to argue for an interpretation of that licence, and

"unpacking" and valuation methodology and outcomes, that minimise the consideration for the licence to its lowest possible value.

46. For example, if one licensee pays a 2% royalty on units that sell for £100 each, a second, prospective licensee, who sells units for £200 each, would claim that the "effective royalty rate" in the first license is not 2% of £200 but "£2 per unit," and would insist that it would be discriminatory for it to pay anything more. A third licensee, who (like the first) sells units at £100 each, and analyses the second licence, would claim that the "effective rate" in that agreement is not £2 per unit but $£2 / £200 = 1\%$, and would insist that it would be discriminatory for it to pay anything more than £1 per unit. A fourth licensee, selling (like the second) at £200, that analyses the third licence would insist that the "effective rate" is not 1% of £100 but £1 per unit. In this manner, each subsequent licensee can claim to want nothing more than the "same deal" given to an earlier licensee, but interprets that deal selectively to its own advantage. Across multiple competitors, applying this process would result in a persistent, immutable decline in the rates actually paid amongst Ericsson's licensees and discrimination against those licensees who sign up to licences early and in favour of the licensees that hold out from taking a licence for longest.
47. Finally, the implementer would also be incentivised to argue that the SEP owner must offer it terms more favourable to the implementer than what other implementers have agreed to take, just as Huawei argues that a UK-only licence is appropriate rather than the global license that Samsung received.
48. The likely result would be disagreement between the SEP owner and implementer at every one of these three stages, and an increase in litigation over FRAND terms, whereas the "general" non-discrimination rule established by the lower courts would lend less legitimacy to opportunistic arguments and allow licensing parties to negotiate holistically and reach practical outcomes that ensure fair access to standards.

Downward spiral in royalties

49. Since SEP owners rely on concluding licensing transactions to obtain revenues, they cannot afford to allow SEP licensing to halt completely. It follows from the above that a "hard-edged" non-discrimination rule would result in a continual downward spiral in royalty rates, as the SEP owner has to repeatedly offer a compromise rate, below the most recent royalty ceiling, in order simply to be able to conclude the next licence and obtain returns. The implementer, on the other hand, is not incentivised to

compromise at all since it is likely already to be manufacturing and selling products – and thereby earning revenues – using the SEP owner's patented technology while negotiations are ongoing.

50. Under these circumstances, with "hard-edged" non-discrimination, the incentive for innovators to contribute cutting-edge technology to standardisation would drastically diminish, disrupting the balance of interests at the heart of ETSI's IPR Policy. Moreover, as the example at paragraph 46 illustrates, such a rule would not prevent discrimination, but would instead ensure that it occurs in favour of those licensees that enter licences later than their peers, thereby penalising those implementers that enter licences early and incentivising hold-out.
51. For all of these reasons, "hard-edged" non-discrimination would make it harder for parties to conclude FRAND licences and would frustrate the intention behind the ETSI IPR Policy – good faith negotiations for FRAND terms – whereas the lower courts' definition would fully align with that intention.

Ground 3: Positive Impact of a "General" Non-Discrimination Rule

52. As the lead architect and a major licensor of cellular standardised technology, as well as a major implementer and licensee of cellular standardised technology, Ericsson believes that the lower courts' approach to the non-discrimination limb of FRAND is well-balanced and aligns with economic realities. FRAND requires flexibility to encourage both continued investment in standardised technology as well as widespread adoption of that technology. Parties should negotiate what is FRAND in good faith and in a manner that reflects the economic value of the patented technology, such that the resulting terms are both merited and sustainable.
53. When parties know that courts will take a holistic approach to FRAND and derive a licence rate in view of various relevant factors or data points of economic value, it incentivises them to settle their disputes outside of court. A "general" non-discrimination rule provides a safeguard against arguments that drive down royalties to the advantage of opportunistic implementers that delay entering into licences (as illustrated in paragraph 46), and permits parties sufficient flexibility to reach a practical negotiated outcome in the event of disagreement on certain principles. "Hard-edged" non-discrimination, on the other hand, would guarantee the implementer a "best possible outcome" to any dispute, produce a continual downward spiral in royalty rates for the innovator, and tip the balance towards extended holdout and freeriding, rather than the conclusion of freely negotiated licences.

54. While Huawei worries that a fair benchmark allows for variance in negotiated royalty rates below that benchmark, a "hard-edged" non-discrimination rule would not allay this concern (as explained above). Moreover, courts can decide the fair benchmark in view of the range established in relevant licences, as noted by the Court of Appeal in paragraph 202 of its judgment, including the lower points in the range. Birss J did just that in this matter, as upheld by the Court of Appeal.

Ground 3: Non-Discrimination – Approach of Courts in Other Jurisdictions

55. The law interpreting the FRAND commitment in other countries such as the United States does not require "hard-edged" non-discrimination. In *HTC v Ericsson*, the US District Court for the Eastern District of Texas found Ericsson's licence offer to HTC to be non-discriminatory "*based on the whole of Ericsson's submitted comparable licenses*", and rejected HTC's argument that the offer was discriminatory as compared to certain existing licences only.⁷

Ground 3: Conclusion

56. For all of the reasons set out above, Ericsson believes that Birss J's analysis, and the analysis of the Court of Appeal, is consistent with the explicit policy objectives of the ETSI IPR Policy, as well as its drafting history, its explanatory guide, and a reasonable economic perspective. In contrast, Huawei's "hard-edged non-discrimination" does not align with ETSI's IPR Policy objectives, was rejected in principle during the drafting history of the ETSI IPR Policy, would frustrate good faith negotiations in contravention of ETSI's expectations in its Guide, and would be unreasonable from an economic perspective, leading to extended holdout.



James Marshall

Taylor Wessing LLP

23 September 2019

⁷ *HTC Corporation and HTC America Inc v Telefonaktiebolaget LM Ericsson and Ericsson Inc*, Case 6:18-cv-00243-JRG, United States District Court of the Eastern District of Texas Tyler Division, Memorandum of Findings of Fact and Conclusions of Law, 23 May 2019, paragraph CL25.